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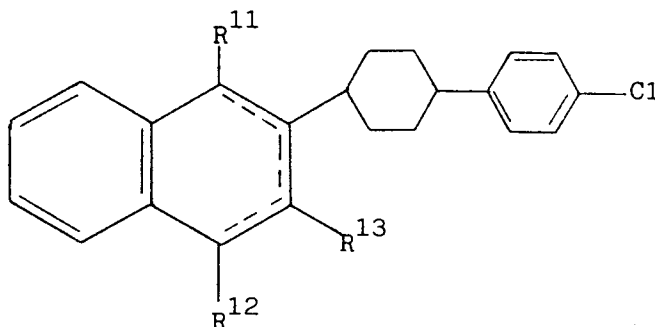
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(54) **Naphthoquinones for the treatment and prophylaxis of pneumocystis carinii infections, and novel naphthoquinones.**

(57) The present invention relates to the use of known and novel naphthoquinones in the treatment and prophylaxis of *Pneumocystis carinii* infections, and for the manufacture of medicaments for the treatment and prophylaxis of *P.carinii* infections, novel formulations containing said compounds, and novel naphthoquinones of formula (VI):



(VI)

EP 0 362 996 A3

wherein

R^{11} and R^{12} each represent $=O$ and the dotted line represents a double bond between the 2 and 3 positions of the quinone ring, in which case R^{13} represents a group $-OCOR^5$; a group OR^6 or SR^6 ; or a group NR^7R^8 ; or the dotted line represents double bonds at the 1,2 and 3,4 positions of the quinol ring and R^{11} , R^{12} and R^{13} each represents a group $-OCOR^{14}$, wherein R^{14} represents an optionally substituted C_{1-10} alkyl group.



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PARTIAL EUROPEAN SEARCH REPORT

which under Rule 45 of the European Patent Convention
shall be considered, for the purposes of subsequent
proceedings, as the European search report

Application Number

EP 89 30 8268

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
A	GB-A-2 185 395 (WELLCOME) * Whole document *	1-6, 9, 10	A 61 K 31/12 C 07 C 50/32
D, A	DE-A-2 705 599 (WELLCOME) * Claims *	1-6, 9, 10	C 07 C 225/30 C 07 C 69/157 C 07 C 69/96 C 07 C 229/60 C 07 C 217/22 C 07 C 46/00
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			A 61 K C 07 C 69/00
INCOMPLETE SEARCH			
The Search Division considers that the present European patent application does not comply with the provisions of the European Patent Convention to such an extent that it is not possible to carry out a meaningful search into the state of the art on the basis of some of the claims Claims searched completely : Claims searched incompletely : Claims not searched : 7 Reason for the limitation of the search: Method for treatment of the human or animal body by surgery or therapy (see art. 52(4) of the European Patent Convention).			
Place of search THE HAGUE		Date of completion of the search 20-01-1992	Examiner KINZINGER J.M.
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			



CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ All claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid,
namely claims:
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions,
namely:

See sheet -B-

- ☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid,
namely claims:
- ☐ None of the further search fees has been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims,
namely claims:



LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions,

namely:

1. Claims 1-6,9,10: Use of a naphthoquinone against *Pneumocystis carinii* infections and a pharmaceutical formulation thereof.
2. Claims 8,11,12: Novel naphthoquinones of formula VI, pharmaceutical formulations thereof and a method of synthesis.